WHAT IS CLAIMED IS:

1   1. A method of managing a computer database, comprising the steps of:

2   importing data into a database residing on a computer system;

3   constructing a schema object to represent a schema of the database; and

4   manipulating the database using an aggregate classifier based on the schema

5   object.

1   2. The method of Claim 1 wherein said constructing step includes the steps of:

2   defining a plurality of classifier definitions corresponding to the schema of the

3   database; and

4   mapping the classifier definitions to columns and tables in the database.

1   3. The method of Claim 2 wherein said defining step defines a "property"

2 classifier which interacts with a single column on a single table in the database.

1   4. The method of Claim 3 wherein said defining step further defines an

2   "object" classifier which contains one or more of the "property" classifiers.

1   5. The method of Claim 3 wherein said defining step defines a "split-object"

2 classifier which makes more than one "object" classifier appear as a single classifier.

1   6. The method of Claim 5 wherein said defining step further defines a "join"

2 classifier which identifies how multiple "object" classifiers database objects are

3 linked in a "split-object" classifier.

1   7. The method of Claim 5 wherein said defining step defines a "mapped

2 property" classifier as a special form of the "split-object" classifier to manage data

3 stored in a table of the database which serves as an index to another database table.

1   8. The method of Claim 2 wherein said defining step defines a parameterized

2 classifier which is a template for classifiers that are instantiated when associated

3 parameters are provided.

1   9. The method of Claim 1 further comprising the steps of:

2   modifying the schema of the database;

3   constructing a second schema object for the modified database; and

4   manipulating the modified database using the second schema object.

1   10. The method of Claim 9 wherein said step of constructing the second

2   schema object includes the step of re-writing classification definitions stored on the

3   computer system.

1   11. The method of Claim 1 wherein said constructing step includes the step of

2   writing classification definitions stored on the computer system using a field-based

3   language.

1   12. The method of Claim 11 wherein said writing step uses XML.

1   13. The method of Claim 1 wherein said constructing step includes the step of

2   writing classification definitions stored on the computer system.

1   14. The method of Claim 13 wherein said importing step parses an import file

2   to import the data.

1   15. The method of Claim 13 wherein said manipulating step includes the step

2   of an application, residing on the computer system, interacting with a composite

3   object included in the classification definitions.

1   16. The method of Claim 1 wherein said manipulating step includes the step of

2   generating a SQL SELECT query using the query generator.

1   17. The method of Claim 1 wherein said manipulating step includes the step of

2   generating a SQL INSERT query using the query generator.

1   18. The method of Claim 1 wherein said manipulating step includes the step of

2   generating a SQL UPDATE query using the query generator.

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1   19. The method of Claim 1 wherein said manipulating step includes the step

2   of generating a SQL DELETE query using the query generator.

1   20. The method of Claim 16 wherein said generating step includes the step of

2   an aggregate classifier interrogating the schema object to determine how different

3   classifiers correspond to columns and tables in the database.

1   21. A computer system comprising:

2   memory means storing a database, and storing program instructions adapted to

3   construct a schema object to represent a schema of the database, and

4   manipulate the database using an aggregate classifier based on the

5   schema object; and

6   means for processing the program instructions.

1   22. The computer system of Claim 21 wherein the program instructions define

2   a plurality of classifiers corresponding to the schema of the database, and map the

3   classifiers to tables in the database.

1   23. The computer system of Claim 20 wherein the program instructions further

2   define a "property" classifier which interacts with a single column on a single table in

3   the database.

1   24. The computer system of Claim 23 wherein the program instructions further

2   define an "object" classifier which contains one or more of the "property" classifiers.

1   25. The computer system of Claim 22 wherein the program instructions further

2   define a "split-object" classifier which makes more than one "object" classifier appear

3   as a single classifier.

1   26. The computer system of Claim 25 wherein the program instructions further

2   define a "join" classifier which identifies how multiple "object" classifiers are linked

3   in a "split-object" classifier.

1   27. The computer system of Claim 25 wherein the program instructions further

2   define a "mapped property" classifier as a special form of the "split-object" classifier

3   to manage data stored in a table of the database which serves as an index to another

4   database table.

1   28. The computer system of Claim 22 wherein the program instructions

2   further define a parameterized classifier which is instantiated when associated

3   parameters are provided.

1   29. The computer system of Claim 21 wherein the program instructions

2   construct a second schema object when a structure of the database is modified.

1   30. The computer system of Claim 29 wherein the program instructions

2   construct the second schema object by re-writing classification definitions stored in

3   the memory means.

1   31. The computer system of Claim 21 wherein the program instructions

2   construct the schema object by writing classification definitions stored on the

3   computer system using a field-based language.

1   32. The computer system of Claim 21 wherein the program instructions

2   generate a SQL SELECT query using the query generator.

1   33. The method of Claim 21 wherein said manipulating step includes the step

2   of generating a SQL INSERT query using the query generator.

1   34. The method of Claim 21 wherein said manipulating step includes the step

2   of generating a SQL UPDATE query using the query generator.

1   35. The method of Claim 21 wherein said manipulating step includes the step

2   of generating a SQL DELETE query using the query generator.

1   36. The computer system of Claim 32 wherein the program instructions further

2   direct an aggregate classifier to interrogate the schema object to determine how

3   different classifiers correspond to columns and tables in the database.

1   37. The computer system of Claim 21 wherein the program instructions

2   construct a composite object to interact with an application program residing in said

3   memory means.

1   38. A computer program product comprising:

2   a computer-readable storage medium; and

3   program instructions stored on said storage medium for constructing a schema

4   object to represent a schema of the database residing on a computer

5   system, and manipulating the database using an aggregate classifier

6   based on the schema object.

1   39. The computer program product of Claim 38 wherein the program

2   instructions define a plurality of classifiers corresponding to the schema of the

3   database, and map the classifiers to tables in the database.

1   40. The computer program product of Claim 39 wherein the program

2   instructions further define a "property" classifier that interacts with only a single

3   column on a single table in the database.

1   41. The computer program product of Claim 40 wherein the program

2   instructions further define an "object" classifier which contains one or more of the

3   "property" classifiers

1   42. The computer program product of Claim 39 wherein the program

2   instructions further define a "split-object" classifier which makes more than one

3   "object" classifier appear as a single classifier.

1   43. The computer program product of Claim 42 wherein the program

2   instructions further define a "join" classifier which identifies how multiple "object

3   classifiers" are linked in a "split-object" classifier.

1   44. The computer program product of Claim 42 wherein the program

2   instructions further define a "mapped property" classifier as a special form of the

3   "split-object" classifier to manage data stored in a table of the database which serves

4   as an index to another database table.

1   45. The computer program product of Claim 39 wherein the program

2   instructions further define a parameterized classifier which is instantiated when

3   associated parameters are provided.

1   46. The computer program product of Claim 38 wherein the program

2   instructions construct a second schema object when a structure of the database is

3   modified.

1   47. The computer program product of Claim 46 wherein the program

2   instructions construct the second schema object by re-writing classification definitions

3   stored on the computer system.

1   48. The computer program product of Claim 38 wherein the program

2   instructions construct the schema object by writing classification definitions stored on

3   the computer system using a field-based language.

1   49. The computer program product of Claim 38 wherein the program

2   instructions generate a search query using the schema object.

1   50. The computer program product of Claim 49 wherein the program

2   instructions further direct an aggregate classifier to interrogate the schema object to

3   determine locations of different classifiers in the database.

1   51. The computer program product of Claim 38 wherein the program

2   instructions construct a composite object to interact with an application program

3   residing on the computer system.